



## **King County**

Department of Natural Resources and Parks  
Wastewater Treatment Division

West Point Treatment Plant, WTP-NR-0100  
1400 Discovery Park Blvd  
Seattle, WA 98199-1044

September 8, 2020

TO: Robert Waddle, WTD Operations Manager

FM: Process Control Staff

RE: West Point Treatment Plant Performance Report – August 2020

All discharge requirements were met for Outfall 001 in August at the West Point Wastewater Treatment Plant. Effluent cBOD averaged < 25 mg/L and TSS averaged < 30 mg/L. Effluent pH was maintained between 6.0 and 9.0.

Total Plant flow at West Point averaged 61.93 MGD, 3.17 MGD below the average August flow for the previous five years (65.10 MGD). North end flows were sent to South Plant and Brightwater via Woodinville and North Creek. The plant's SCADA system (Ovation) was upgraded (to Evergreen) in August.

Seattle had below average precipitation in August. West Point recorded a total of 0.49 inches of precipitation for the month. There was measurable precipitation on 7 days of the month, with a high of 0.15 inches on August 6. Seattle-Tacoma Airport (Sea-Tac) recorded 0.31 inches of precipitation, 0.57 inches below the normal August rainfall of 0.88 inches. The National Weather Service Office at Sand Point recorded 0.58 inches of precipitation, 0.39 inches below the normal 0.97 inches.

### Primary Treatment

Primary treatment began and ended the month with nine tanks in service. A few days in August had ten tanks in service on August 5- 8 and August 13 -14. Eight tanks were in service August 22-26. Otherwise, 9 tanks were in service. Primary performance was good with 55.2% TSS and 32.0% BOD removal average in August.

### Secondary Treatment

The secondary process operated with four aeration trains and nine clarifiers in service. All trains operated in plug flow throughout the month. The secondary sludge age averaged 2.26 days for the month of August. Final effluent quality was excellent in August.

Key Measures

|                   |        |                   |
|-------------------|--------|-------------------|
| Volume Treated    | 1920   | million gallons   |
| Permit Compliance | 0      | exceptions        |
| Biosolids         | 3240   | wet tons hauled   |
|                   | 881    | dry tons hauled   |
|                   | 27.18% | cake total solids |

Permit Compliance Summary – August 2020

| Flow<br>(mgd) | cBOD<br>(mg/l) | TSS<br>(mg/l) | cBOD<br>(% Removal) | TSS<br>(% Removal) | Fecal<br>Coliforms<br>(counts/100<br>ml) | Chlorine<br>Residual<br>(µg/l) |
|---------------|----------------|---------------|---------------------|--------------------|--|--------------------------------|
|               | Plant/Permit   | Plant/Permit  | Plant/Permit        | Plant/Permit       | Plant/Permit                             | Plant/Permit                   |
| 61.93         | 5/25           | 6/30          | 97/85               | 98/85              | 3/200                                    | 118/139                        |

West Point's NPDES Permit requires 85% removal of cBOD and TSS during the dry season months of May through October. The Permit also sets effluent concentration limits of 25 mg/l for cBOD and 30 mg/l for TSS, or 15% of influent values during the dry season months, whichever is more stringent. For August 2020, the effluent concentration limits were 25 mg/l for cBOD and 30 mg/l for TSS.

Process Control

Total plant flow for the month was 1919.91 million gallons. For the month, influent and effluent cBOD concentrations averaged 198 mg/l and 5 mg/l, respectively (97% removal); influent and effluent TSS averaged 264 mg/l and 6 mg/l, respectively (98% removal).